

**To:** Harris-Bishop, Rusty[Harris-Bishop.Rusty@epa.gov]  
**From:** Rao, Kate  
**Sent:** Mon 8/10/2015 3:47:06 PM  
**Subject:** FW: Action to deal with Animas River contamination slow moving (Durango Herald) [note: article states contamination is moving to Navajo Nation]

Rusty – did you see this? EPA triggered the release of the contaminated water.

Kate

\*\*\*\*\*  
Kate Rao  
Drinking Water Protection Section (WTR 3-2)  
USEPA Region 9  
75 Hawthorne St., San Francisco, CA 94105  
tel: (415) 972-3533 / fax: (415) 947-3549

**From:** Rao, Kate  
**Sent:** Monday, August 10, 2015 8:46 AM  
**To:** Montgomery, Michael; Li, Corine  
**Subject:** Action to deal with Animas River contamination slow moving (Durango Herald) [note: article states contamination is moving to Navajo Nation]

## Action to deal with Animas River contamination slow moving

### **Officials, community wait on definitive results about toxic metals**

By [Mary Shinn](#) , [Peter Marcus](#) and [Shane Benjamin](#) Herald staff writers

The Animas River may have regained some of its translucence Saturday, but a complete picture of its toxicity remained murky three days after mustard-yellow mine waste filled the banks.

The Environmental Protection Agency released some water samples Saturday, including pH levels and dissolved metal loads, but it didn't release the total levels of heavy metals, including lead, zinc, arsenic, cadmium, among others. EPA planned to release a more complete report late Saturday or early Sunday. At least two of the heavy metals found in the wastewater can be lethal for humans with long-term exposure. Arsenic at high levels can cause blindness, paralysis and cancer. Lead poisoning can create muscle and vision problems for adults, harm development in fetuses and lead to kidney disease, developmental problems and sometimes death in children, the EPA said.

One thing was certain: The effects of the environmental disaster will be felt for months. The high-water mark left from the pulse of toxic waste deposited a yellow-orange film along large swaths of the Animas River. As the murky water traveled 50 miles from Silverton, it tumbled over rocks that kept it stirred. By the time it arrived in the Animas Valley near Dalton Ranch, the river slowed, which gave minerals a chance to settle on the riverbed. High-water run-off events are expected to stir those sediments and cloud the river during the weeks and months to come.

"It's here for a while, no doubt about it," said Butch Knowlton, director of La Plata County's Office of Emergency Management.

On the positive side, the EPA completed retention ponds Saturday at the Gold King Mine near Silverton and is now treating polluted water flowing out of the mine.

About 550 gallons per minute of polluted water was flowing from the mine Saturday, down from the 740 gallons per minute Friday, said Shaun McGrath, administrator for the EPA's Region 8 Office in Denver.

The EPA triggered the release of about 1 million gallons of polluted water from the mine Wednesday. Toxic wastewater has continued to flow from the mine ever since.

Colorado Parks and Wildlife placed 108 fingerling rainbow trout in three baskets on Thursday to monitor the effects. Only one fish had died as of Saturday – and that one likely died for unrelated causes shortly after being put into the river, according to EPA officials who held a news conference Saturday afternoon.

The Mountain Studies Institute has found small insects in the river near Durango still alive after 20 hours of exposure to the pollution.

"Continued monitoring may reveal substantial impacts to aquatic life over a longer period of time, but it is good news that widespread acute mortality did not immediately occur," said Scott Roberts, aquatic ecologist with Mountain Studies Institute.

Once the water testing results are back, EPA technicians will analyze what the results mean for agriculture, wildlife and human contact and consumption.

Toxic wastewater was released about 10:30 a.m. Wednesday, while an EPA crew was moving dirt from the collapsed entrance of the mine. Investigators underestimated the amount of wastewater that was trapped behind a wall of material. During excavation, loose material gave way, opening the mine tunnel and spilling mineral-rich wastewater. It also washed away a small retention area the crew had built.

The EPA administration is going to investigate why EPA staff and contractors allowed the water to be released, McGrath said. Currently, no one has been placed on leave. But McGrath said he would look into anything that could be actionable against personnel.

"I am going to do it sensitively," he said.

The team was working at one of the many abandoned mines that have been leaching heavy metals into the river for decades.

Silverton residents have long opposed a Superfund listing. But McGrath said conversations about a listing are ongoing.

The Animas River remained closed to recreation Saturday, and officials could not say when the river would be safe again to use.

The metals must naturally settle out of the water into the riverbed, McGrath said. The EPA has no plans to actively dredge the river, because it could cause more damage.

Saturday afternoon, the wastewater was moving about 4 miles an hour and it had reached the confluence of the San Juan River in New Mexico.

Aztec and Farmington had shut down their water intakes and so had irrigators all along the river, EPA officials said.

The spill was expected to reach the Navajo Nation by the end of Saturday.

Saturday mid-day, La Plata County Sheriff Sean Smith was driving up and down the length of the river making sure new closure signs were in place. He had the signs created Friday night using leftover campaign signs from his election in November.

The newly elected sheriff said he didn't know he had the statutory authority to close the river until a few days ago when the county attorney found it in the statutes.

Rainstorms Saturday in the high country were expected to bring additional toxic flows downstream, Smith said.

Knowlton, with La Plata County's Office of Emergency Management, said the water color had improved Saturday, but rain in the high country could increase flow and pick up minerals that settled along the banks and riverbed.

Knowlton spent Saturday identifying wells and water supplies that are influenced by or next to the Animas River. He said there are about 1,000 residents with wells between Bakers Bridge and the Colorado-New Mexico line. County officials are working to identify how many of those are within close proximity to the river and what kind of earthen materials surround them.

Water moves more quickly through boulders and gravel than it does dirt, clay, sand and fine silts, Knowlton said. The county is working with Wright Water Engineering to identify wells that may need to undergo testing for water contamination, Knowlton said.

"It's a frustrating situation for all of us in this community, and the impact that has been created in the community is significant," he said. "But it's here, we can't turn the clock back, and there are processes now that we're going to have to work through to fully understand the impacts and ramifications of the incident."

Melissa Lopez, who lives on the river south of Durango, asked for water to be delivered to her house Saturday because she was fearful her well might be contaminated.

"Until we get the test results back and know for sure whether it's safe, we're going to drink water from another source," she said.

\*\*\*\*\*

Kate Rao  
Drinking Water Protection Section (WTR 3-2)  
USEPA Region 9  
75 Hawthorne St., San Francisco, CA 94105  
tel: (415) 972-3533 / fax: (415) 947-3549

